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Free copies available from Boeing Scientific Research Labs. Library as Boeing Trans. R6. When supply is exhausted, order from OTS or SLA \$1.60; 63-10650

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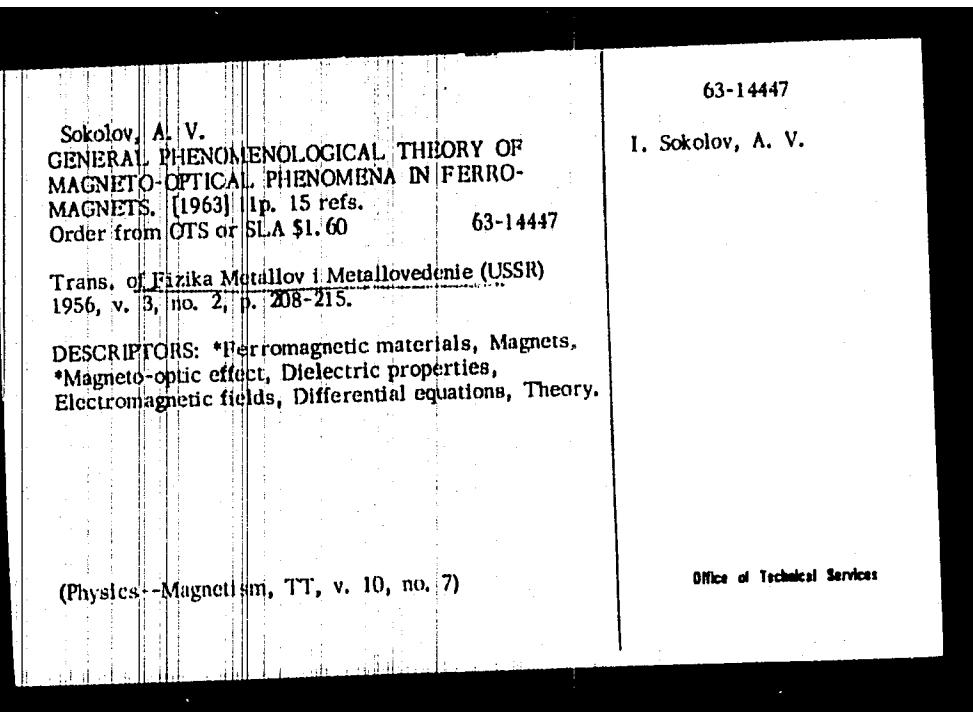
DESCRIPTORS: *Electrons, *Solids, Metals, *Quantum mechanics, *Quantum statistics, Elementary particles.

Some results are set forth associated with obtaining kinetic equations for electrons that take into account the presence of spin. In this connection, the correlation of particles due to their indistinguishability is also taken into account. The equations found are utilized to (Physics--Solid State, TT, v. 9, no. 6) (over)

63-10650

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III. Boeing Scientific Research
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THE INFLUENCE OF ADDITIONS OF LOW-MELTING METALS ON THE RATE OF EXPULSION OF A VOLATILE COMPONENT FROM SOLID SOLUTIONS AND ON THE STRUCTURE OF THE SPECIMENS. [1960] 20p. (3 figs., omitted) 8 refs.
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Trans. of Iz[ka] Metalloved[eniye] (USSR)
1956, v. 3, no. 2, p. 247-253.

If in the presence of a third element in an alloy the expulsion rate of the volatile component is increased, then the compression of the sample is reduced and the total pore volume is increased. If the expulsion rate is reduced in the presence of the third element, the compression of the sample increases and the total porosity decreases. The parallelism between the influence of the third element on the expulsion rate and the structure of the specimen attest that the expulsion of the volatile component from solid solutions is a
(Chemistry--Physical, TT, v. 5, no. 9) (over)

61-10665

1. Zinc--Diffusion
2. Cadmium--Diffusion
3. Alloys--Microstructure

1. Santalov, P. A.

151813

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Structure of Magnetite in Diffusional Reduction
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Henry Brutton Tr No 3913
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* Morris D. Friedman for Lincoln Lab
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1957, v. 5, no. 1, p. 137-141.

(Metallurgy--Ferrous Metals, TT, v. 11, no. 12)

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- 1) The Deformation of Steel Under the Effect of
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